

**Remarks**

This Application has been carefully reviewed in light of the Office Action mailed March 24, 2008. Applicants have amended independent Claim 11 solely to correct a typographical error. Applicants believe all claims are allowable over the Examiner's rejections without amendment and respectfully provide the following remarks. Applicants respectfully request reconsideration and allowance of all pending claims.

**I. Claims 3, 6, 8-9, and 11-12 Recite Patentable Subject Matter**

The Examiner rejects Claims 3, 6, 8-9, and 11-12 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. (Office Action at 2-3)<sup>1</sup> Applicants traverse these rejections.

Patentable subject matter is "any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereto." *See* 35 U.S.C. § 101. When an abstract idea is reduced to a practical application, the abstract idea no longer stands alone if the practical application of the abstract idea produces a useful, concrete, and tangible result. This then satisfies the requirements of 35 U.S.C. § 101. *See In re Alappat*, 33 F.3d 1526, 1544, 31 U.S.P.Q.2d 1545, 1557 (Fed. Cir. 1994); *see also State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 U.S.P.Q.2d 1596, 1601-02 (Fed. Cir. 1998). While an abstract idea by itself may not satisfy the requirements of 35 U.S.C. § 101, an abstract idea when practically applied to produce a useful, concrete, and tangible result satisfies 35 U.S.C. § 101. *See AT&T Corp. v. Excel Comm. Inc.*, 172 F.3d 1352, 1357, 50 U.S.P.Q. 1447, 1452 (Fed. Cir. 1999) (stating that as technology progressed, the CCPA overturned some of the earlier limiting principles regarding 35 U.S.C. § 101 and announced more expansive principles formulated with computer technology in mind); *see also In re Musgrave*, 431 F.2d 882, 167 U.S.P.Q. 280 (CCPA 1970) (cited by the Federal Circuit in *AT&T Corp.*, 172 F.3d at 1356). Thus, producing a useful, concrete, and tangible result appears to be the key to patentability according to *State Street* and other applicable case law.

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<sup>1</sup> The Examiner states that the "invention claims an adaptive system modeling method." (Office Action at 2) Applicants respectfully disagree with this characterization of Claims 8-9 and 11-12 inasmuch as Claims 8-9 are directed to a "program storage device readable by a machine . . ." and Claims 11-12 are directed to a "computer system."

As stated by the Federal Circuit in *State Street*, “transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete, and tangible result’ -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” *State Street*, 149 F.3d at 1373, 47 U.S.P.Q.2d at 1601-02. Each of Claims 3, 6, 8-9, and 11-12 recites a useful, concrete, and tangible result, which is all the law requires for a claim to be directed to statutory subject matter, and is therefore directed to patentable subject matter.

Claim 3, which Applicants discuss as an example, is directed to an “adaptive system modeling method” that comprises:

- determining a baseline significance signature of current behavior of a system by performing a discriminant analysis;
- selecting from a plurality of candidate features a set of input features and a superset of the input features and other features by using the baseline significance signature;
- generating a system model by using data corresponding to the selected input features set; and
- maintaining online data corresponding to the superset of the input features and other features collected from the system.

Claims 8 and 11 recite certain substantially similar limitations.

Claim 3 is not merely a manipulation of an abstract idea. Instead, Claim 3 recites a useful, concrete, and tangible result, which is all the law requires for a claim to be directed to statutory subject matter, and is therefore directed to patentable subject matter. In particular, “generating a system model by using data corresponding to the selected input features set” and “maintaining online data corresponding to the superset of the input features and other features collected from the system” are practical applications of independent Claim 3, the useful, concrete, and tangible results being the system model generated by using data corresponding to the selected input features set and the maintained online data corresponding to the superset of the input features and other features collected from the system.

Respectfully, it appears to Applicants that the Examiner's statements regarding the alleged "abstractness" of Applicants' claims relate to the breadth of the claims rather than the guidelines for patentable subject matter. (See Office Action at 2-3) The fact that Applicants' claims may be broad (an issue on which Applicants do not take a position at this time) does not necessarily mean that Applicants' claims are directed to non-statutory subject matter. In fact, "[t]he scope of the claims is not relevant to subject matter eligibility." *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1342 (Fed. Cir. 2005).

Claim 6, which Applicants discuss as an example, is directed to an "adaptive system modeling method" that comprises:

- determining a baseline significance signature of current behavior of a system by using a decision tree methodology to perform a discriminant analysis;
- selecting from a plurality of candidate features of a system a set of input features by using the baseline significance signature; and
- generating a system model by using data corresponding to the selected input features set.

Claims 9 and 12 recite certain substantially similar limitations.

Claim 6 is not merely a manipulation of an abstract idea. Instead, Claim 6 recites a useful, concrete, and tangible result, which is all the law requires for a claim to be directed to statutory subject matter, and is therefore directed to patentable subject matter.

In particular, "generating a system model by using data corresponding to the selected input features set" is one practical application of independent Claim 6, the useful, concrete, and tangible result being the system model generated by using data corresponding to the selected input features set.

Respectfully, it appears to Applicants that the Examiner's statements regarding the alleged "abstractness" of Applicants' claims relate to the breadth of the claims rather than the guidelines for patentable subject matter. (See Office Action at 2-3) The fact that Applicants' claims may be broad (an issue on which Applicants do not take a position at this time) does not necessarily mean that Applicants' claims are directed to non-statutory subject matter. In

fact, “[t]he scope of the claims is not relevant to subject matter eligibility.” *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1342 (Fed. Cir. 2005).

For at least these reasons, Applicants respectfully submit that Claims 3, 6, 8-9, and 11-12 recite patentable subject matter in compliance with 35 U.S.C. § 101 and respectfully request reconsideration and allowance of these claims.

**II. Claim Objections**

The Examiner objects to Claims 4-5 as being dependent on a rejected base claim. Claims 4-5 dependent from independent Claim 3, which Applicants have shown above to be allowable, and are allowable for at least this reason. Applicants respectfully request the Examiner to withdraw the objections to Claims 4-5.

**III. Allowed Claims**

Applicants appreciate the Examiner’s indication that Claims 1-15 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above. (Office Action at 4) Applicants respectfully issue a statement commenting on the Examiner’s statement of reasons for allowance of Claims 1-15 pursuant to 37 C.F.R. § 1.104. Applicants respectfully disagree with the Examiner’s reasons for allowance to the extent that they are inconsistent with applicable case law, statutes, and regulations. Furthermore, Applicants do not admit to any characterization or limitation of the claims by the Examiner, particularly any that are inconsistent with the language of the claims considered in their entirety and including all of their constituent limitations, or to any characterization of a reference by the Examiner.

**IV. No Waiver**

All of Applicants’ arguments and amendments are without prejudice or disclaimer. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner’s additional statements.

**Conclusion**

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this application in any manner, the Examiner is invited to contact Chad D Terrell, Attorney for Applicants, at the Examiner's convenience at (214) 953-6813.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any necessary fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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